[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-0011; Project Identifier MCAI-2021-00485-T]

RIN 2120-AA64

Airworthiness Directives; MHI RJ Aviation ULC (Type Certificate Previously Held by Bombardier, Inc.) Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for certain MHI RJ Aviation ULC Model CL-600-2B19 (Regional Jet Series 100 & 440) airplanes, Model CL-600-2C10 (Regional Jet Series 700, 701 & 702) airplanes, Model CL-600-2C11 (Regional Jet Series 550) airplanes, Model CL-600-2D15 (Regional Jet Series 705) airplanes, Model CL-600-2D24 (Regional Jet Series 900) airplanes, and Model CL-600-2E25 (Regional Jet Series 1000) airplanes. This proposed AD was prompted by reports of corrosion on fuel clamshell couplings installed in the fuel tank, and a determination that new or more restrictive airworthiness limitations are necessary. This proposed AD would require removing and replacing the fuel clamshell couplings on certain airplanes, and revising the existing maintenance or inspection program, as applicable, to incorporate new or more restrictive airworthiness limitations. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

• Federal eRulemaking Portal: Go to https://www.regulations.gov. Follow the instructions for submitting comments.

• Fax: 202-493-2251.

• Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

• Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact MHI RJ Aviation ULC, 12655 Henri-Fabre Blvd., Mirabel, Québec J7N 1E1 Canada; Widebody Customer Response Center North America toll-free telephone +1-844-272-2720 or direct-dial telephone +1-514-855-8500; fax +1-514-855-8501; email thd.crj@mhirj.com; Internet https://mhirj.com. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Examining the AD Docket

You may examine the AD docket on the Internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2022-0011; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Jiwan Karunatilake, Aerospace Engineer, Airframe and Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531; email 9-avs-nyaco-cos@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include "Docket No. FAA-2022-0011; Project Identifier MCAI-2021-00485-T" at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend the proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to https://www.regulations.gov, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this proposed AD.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as "PROPIN." The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Jiwan Karunatilake, Aerospace Engineer, Airframe and Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax

516-794-5531; email 9-avs-nyaco-cos@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Discussion

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued TCCA AD CF-2021-16, dated April 26, 2021 (TCCA AD CF-2021-16) (also referred to after this as the Mandatory Continuing Airworthiness Information, or the MCAI), to correct an unsafe condition for certain MHI RJ Aviation ULC Model CL-600-2B19 (Regional Jet Series 100 & 440) airplanes, Model CL-600-2C10 (Regional Jet Series 700, 701 & 702) airplanes, Model CL-600-2C11 (Regional Jet Series 550) airplanes, Model CL-600-2D15 (Regional Jet Series 705) airplanes, Model CL-600-2D24 (Regional Jet Series 900) airplanes, and Model CL-600-2E25 (Regional Jet Series 1000) airplanes. You may examine the MCAI in the AD docket on the Internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2022-0011.

This proposed AD was prompted by reports of corrosion on fuel clamshell couplings installed in the fuel tank, and a determination that new or more restrictive airworthiness limitations are necessary. The FAA is proposing this AD to address corroded fuel clamshell couplings in the fuel tank, which, if not removed and replaced, could reduce the ability of the fuel coupling to conduct lightning current and possibly lead to arcing and subsequent fuel tank ignition in the event of a lightning strike. See the MCAI for additional background information.

Related Service Information under 1 CFR Part 51

MHI RJ Aviation has issued Service Bulletin 601R-28-068, Revision A, dated December 21, 2020; and Service Bulletin 670BA-28-041, Revision B, dated January 27, 2021. This service information describes procedures for removing and replacing the fuel

clamshell couplings. These documents are distinct because they apply to different airplane models.

MHI RJ Aviation has also issued Temporary Revision (TR) 2S4-002, dated September 1, 2021. This service information describes a Critical Design Configuration Control Limitations (CDCCL) item for bonding of fuel and vent lines for lightning protection to preclude a spark.

MHI RJ Aviation has also issued the following TRs, which describe airworthiness limitations for fuel tank systems.

- TR 2S4-003, dated September 1, 2021; CRJ Series Regional Jet TR ALI-0741, dated October 13, 2020; and CRJ700/900/1000 Series Regional Jet TR ALI-0751, dated April 8, 2021, describe a procedure for removing and replacing self-bonding couplings in the fuel tank.
- CRJ Series Regional Jet TR ALI-0740, dated October 13, 2020, describes a CDCCL item for bonding of fuel and vent lines for lightning protection to preclude a spark.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA's Determination

These products have been approved by the aviation authority of another country, and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI and service information referenced above. The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop in other products of these same type designs.

Proposed Requirements of this NPRM

This proposed AD would require removing and replacing the fuel clamshell couplings on certain airplanes and revising the existing maintenance or inspection program, as applicable, to incorporate new or more restrictive airworthiness limitations.

This proposed AD would require revisions to certain operator maintenance documents to include new actions (e.g., inspections) and CDCCLs. Compliance with these actions and CDCCLs is required by 14 CFR 91.403(c). For airplanes that have been previously modified, altered, or repaired in the areas addressed by this proposed AD, the operator may not be able to accomplish the actions described in the revisions. In this situation, to comply with 14 CFR 91.403(c), the operator must request approval for an alternative method of compliance according to paragraph (m)(1) of this proposed AD.

Differences Between this Proposed AD and the MCAI or Service Information

The MCAI specifies to revise the CDCCL Items as introduced by Bombardier CL-600-2B19 TR 2D-009, dated October 24, 2020, in Appendix D - Fuel Systems Limitations of Part 2, Airworthiness Requirements, of the MHI RJ Maintenance Requirements Manual (MRM). This proposed AD does not require this action because the TR references Appendix D - Fuel Systems Limitations of Part 2, Airworthiness Requirements, of the MHI RJ MRM, which is not applicable to U.S. airplanes. As a result, this proposed AD would require that the information specified in MHI RJ TR 2S4-002, dated September 1, 2021, is incorporated into Supplement 4 - FAA Fuel System Limitations of Part 2, Airworthiness Requirements, of the MHI RJ MRM as required by paragraph (h)(1) of this proposed AD. MHI RJ TR 2S4-002, dated September 1, 2021, addresses the unsafe condition with references that apply to U.S. airplanes and provides the same or better level of safety.

The MCAI also specifies to incorporate the new Fuel System Limitation Task 28-23-00-605 as introduced by Bombardier CL-600-2B19 TR 2D-008, dated October 24,

2020; and to revise the Task Description Effectivity as amended by Bombardier CL-600-2B19 TR 2D-010, dated April 8, 2021; in Appendix D - Fuel Systems Limitations of Part 2, Airworthiness Requirements, of the MHI RJ MRM. This proposed AD does not require these actions because these TRs also reference Appendix D - Fuel Systems Limitations of Part 2, Airworthiness Requirements, of the MHI RJ MRM, which is not applicable to U.S. airplanes. As a result, this proposed AD would require that the information specified in MHI RJ TR 2S4-003, dated September 1, 2021, is incorporated into Supplement 4 - FAA Fuel System Limitations of Part 2, Airworthiness Requirements, of the MHI RJ MRM, as specified in paragraph (h)(2) of this proposed AD. MHI RJ TR 2S4-003, dated September 1, 2021, addresses the unsafe condition with references that apply to U.S. airplanes and provides the same or better level of safety.

Costs of Compliance

The FAA estimates that this proposed AD affects 914 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

Estimated costs for required actions*

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Up to 21 work-hours X $85 per hour = $1,785	Up to $5,837	Up to $7,622	Up to $6,966,508

*Table does not include estimated costs for revising the maintenance/inspection program.

The FAA has determined that revising the maintenance or inspection program takes an average of 90 work-hours per operator, although the FAA recognizes that this number may vary from operator to operator. In the past, the FAA has estimated that this action takes 1 work-hour per airplane. Since operators incorporate maintenance or inspection program changes for their affected fleet(s), the FAA has determined that a per-operator estimate is more accurate than a per-airplane estimate. Therefore, the FAA estimates the total cost per operator to be $7,650 (90 work-hours x $85 per work-hour).

According to the manufacturer, some or all of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected individuals. The FAA does not control warranty coverage for affected individuals. As a result, the FAA has included all known costs in the cost estimate.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Would not affect intrastate aviation in Alaska, and

(3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

MHI RJ Aviation ULC (Type Certificate Previously Held by Bombardier, Inc.):

Docket No. FAA-2022-0011; Project Identifier MCAI-2021-00485-T.

(a) Comments Due Date

The FAA must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected Airworthiness Directives (ADs)

None.

(c) Applicability

This AD applies to the MHI RJ Aviation ULC airplanes, certificated in any category, identified in paragraphs (c)(1) through (4) of this AD.

(1) Model CL-600-2B19 (Regional Jet Series 100 & 440) airplanes, serial numbers 7002 through 7990 inclusive and 8000 through 8112 inclusive.

(2) Model CL-600-2C10 (Regional Jet Series 700, 701 & 702) and CL-600-2C11 (Regional Jet Series 550) airplanes, serial numbers 10002 through 10347 inclusive.

(3) Model CL-600-2D15 (Regional Jet Series 705) and CL-600-2D24 (Regional Jet Series 900) airplanes, serial numbers 15001 through 15499 inclusive.

(4) Model CL-600-2E25 (Regional Jet Series 1000) airplanes, serial numbers 19001 through 19064 inclusive.

(d) Subject

Air Transport Association (ATA) of America Code 28, Fuel.

(e) Reason

This AD was prompted by reports of corrosion on fuel clamshell couplings installed in the fuel tank, and a determination that new or more restrictive airworthiness limitations are necessary. The FAA is issuing this AD to address corroded fuel clamshell couplings in the fuel tank, which, if not removed and replaced, could reduce the ability of the fuel coupling to conduct lightning current and possibly lead to arcing and subsequent fuel tank ignition in the event of a lightning strike.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Clamshell Coupling Replacement: Model CL-600-2B19 Airplanes

For Model CL-600-2B19 airplanes: Within 6,600 flight hours or 36 months, whichever occurs first after the effective date of this AD, remove and replace the fuel clamshell couplings, in accordance with Section 2.B. of the Accomplishment Instructions of MHI RJ Service Bulletin 601R-28-068, Revision A, dated December 21, 2020.

(h) Revision of the Existing Maintenance or Inspection Program: Model CL-600-2B19 Airplanes

For Model CL-600-2B19 airplanes: Within 60 days after the effective date of this AD, revise the existing maintenance or inspection program, as applicable, to incorporate the information specified in paragraphs (h)(1) and (2) of this AD into Supplement 4 - FAA Fuel System Limitations of Part 2, Airworthiness Requirements, of the MHI RJ Maintenance Requirements Manual (MRM).

(1) Critical Design Configuration Control Limitation (CDCCL) Item as specified in MHI RJ Temporary Revision (TR) 2S4-002, dated September 1, 2021.

(2) Fuel System Limitation Task 28-23-00-605 as specified in MHI RJ TR 2S4-003, dated September 1, 2021.

(i) Clamshell Coupling Replacement: Model CL-600-2C10, CL-600-2C11, CL-600-2D15, CL-600-2D24, and CL-600-2E25 Airplanes

For Model CL-600-2C10 and CL-600-2C11 airplanes; Model CL-600-2D15 and CL-600-2D24 airplanes, serial numbers 15001 through 15494 inclusive; and Model CL-600-2E25 airplanes: Within 8,800 flight hours or 48 months, whichever occurs first after the effective date of this AD, replace the fuel clamshell couplings, in accordance with Section 2.B. of the Accomplishment Instructions of MHI RJ Service Bulletin 670BA-28-041, Revision B, dated January 27, 2021.

(j) Revision of the Existing Maintenance or Inspection Program: Model CL-600-2C10, CL-600-2C11, CL-600-2D15, CL-600-2D24, and CL-600-2E25 Airplanes

For Model CL-600-2C10, CL-600-2C11, CL-600-2D15, CL-600-2D24, and CL-600-2E25 airplanes: Within 60 days after the effective date of this AD, revise the existing maintenance or inspection program, as applicable, to incorporate the information specified in paragraphs (j)(1) and (2) of this AD.

(1) Fuel System Limitation Task 28-21-15-601 as specified in [MHI RJ] CRJ Series Regional Jet TR ALI-0741, dated October 13, 2020; and Description Applicability for Airworthiness Limitation Task 28-21-15-601 as amended by [MHI RJ] CRJ700/900/1000 Series Regional Jet TR ALI-0751, dated April 8, 2021; in Section 4-28 of Part 2, Airworthiness Requirements, of the MHI RJ MRM.

(2) CDCCL Item as specified in [MHI RJ] CRJ Series Regional Jet TR ALI-0740, dated October 13, 2020, in Section 5-00 of Part 2, Airworthiness Requirements, of the MHI RJ MRM.

(k) No Alternative Actions, Intervals, or CDCCLs

After the existing maintenance or inspection program has been revised as required by paragraphs (h) and (j) of this AD, no alternative actions (e.g., inspections), intervals, or CDCCLs may be used unless the actions, intervals, and CDCCLs are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (m)(1) of this AD.

(l) Credit for Previous Actions

(1) This paragraph provides credit for actions required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using MHI RJ Service Bulletin 601R-28-068, dated December 3, 2020.

(2) This paragraph provides credit for actions required by paragraph (i) of this AD, if those actions were performed before the effective date of this AD using MHI RJ Service Bulletin 670BA-28-041, dated December 3, 2020; or Revision A, dated December 21, 2020.

(m) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, New York ACO Branch, FAA; or Transport Canada Civil Aviation (TCCA); or MHI RJ Aviation ULC's TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(n) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) TCCA AD CF-2021-16, dated April 26, 2021, for related information. This MCAI may be found in the AD docket on the Internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2022-0011.

(2) For more information about this AD, contact Jiwan Karunatilake, Aerospace Engineer, Airframe and Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531; email 9-avs-nyaco-cos@faa.gov.

(3) For service information identified in this AD, contact MHI RJ Aviation ULC, 12655 Henri-Fabre Blvd., Mirabel, Québec J7N 1E1 Canada; Widebody Customer Response Center North America toll-free telephone +1-844-272-2720 or direct-dial telephone +1-514-855-8500; fax +1-514-855-8501; email thd.crj@mhirj.com; Internet https://mhirj.com. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Issued on January 19, 2022.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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